

## **Assignment of Metrics — Units of Measure**

Another important aspect of this structure is the assignment of metrics or units of measure. As used in this document, the term "metrics" is defined as measurable parameters associated with each of the third level elements of the WBS. The dictionary's definition is "the science or theory of measurement." This use of the word metrics is not to be confused with the use of the metric system of measure.

As mentioned before, the metrics will be assigned to each third level element of the WBS. Furthermore, they will be assigned at lower levels of indenture where appropriate or defined. Note that at the third level, the parameters may only be applicable to certain phases. For example, area (e.g. square meters) may be important for phase 4 (remedial action) of an element but not phase 5 (operations & maintenance). Therefore, area will be identified as applicable and essential by displaying a "4" for phase 4 and not a "5" for phase 5. Likewise, duration (e.g., months) will indicate a "5" for phase 5. Additionally, the primary metric for each third level WBS element is defined as the single most important parameter associated with that element for each phase. The primary metric is identified, in bold-faced type, for each phase and for each WBS element.

The parameters included in the metrics follow:

- Full Time Equivalent (FTE) — total number of personnel (including a summation of part time)
- Lump Sum (LS) — dollar amount (used for **cost elements** such as disposal **tipping fee**)
- Duration — time period (e.g., days, weeks, months, years)
- Vertical — linear measure from ground level up (height) or down (depth)
- Length — horizontal linear measure along one axis
- Width — horizontal linear measure along axis perpendicular to length
- Diameter — linear measure through center to opposite circumference
- Area — measure in two dimensions (e.g., square meters) of surface within boundary
- Volume — measure in three dimensions (e.g., cubic meters) within boundaries on three axes
- Weight — measure of mass (e.g., kilograms)
- Rate — measure of either mass or volume over time (e.g., gallons per minute, tons per day)
- Number — quantity of objects (e.g., number of wells) often referred as each (EA)

The parameters used in this structure can be reported (or entered) in either **Metric** or **English** units of measure. The estimating programs and databases using this structure can be based on either system (the metric system is generally preferred) with a conversion if necessary.